



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/588,465

05/06/2008

John Michael Dooley

29793-1

6701

66344

7590

01/10/2012

Benesch Friedlander Coplan & Aronoff LLP (Eaton)

200 Public Square

Suite 2300

Cleveland, OH 44114-2378

EXAMINER

DRIGGERS, GWENDOLYN YVONNE

ART UNIT

PAPER NUMBER

3679

NOTIFICATION DATE

DELIVERY MODE

01/10/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@beneschlaw.com

JoshuaDobrowsky@Eaton.com

Office Action Summary	Application No. 10/588,465	Applicant(s) DOOLEY ET AL.	
	Examiner Gwendolyn Driggers	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7 and 19-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 19-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is an Office action on the merits. Claims 1, 2, 5-7, and 19-33, as amended, are currently pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 24 and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amendments present new matter.

3. Specifically, there is nothing in the original disclosure which supports the groove having a flat portion.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 3679

6. Claims 19-21 are unclear when considered in light of the figures and the disclosure since the first external/internal surfaces, as shown in figure 6a, extend to the sealing groove and not the retention groove as defined in claim 1. Thus, it is unclear whether Applicant is intending to claim the lengths of the surfaces to the sealing groove or the lengths of the surfaces to the retention groove since the claimed surface length does not "extend from the open end" as recited in claim 1.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1, 2, 5-7, and 19-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vyse et al (US 4,089,549; hereinafter Vyse), and further in view of Yoshino (US 7,007,981).

Regarding claim 1, Vyse discloses a tube retainer assembly (see figure 2) comprising:

a tube (53) (see figure 6 at (58)) having: an open end, a first external surface extending from the open end and having a first external diameter (see figure 6),

a first internal surface extending from the open end and having a first internal diameter (see figure 6),

a reduced external diameter portion (66) adjacent the first external surface and having a second external diameter less than the first external diameter (see figure 6),

an elongated external surface adjacent the reduced external diameter portion having a third external diameter substantially equal to the first external diameter (see figure 6), and

wherein the reduced external diameter portion defines a retention groove formed in and lying below the first external surface and the elongated external surface (see figure 6 at (66)); and

a holding clamp (16) configured as a flat plate having a substantially circular aperture (67b) formed therein and a slot (67a) extending outwardly from the substantially circular aperture without intersecting a periphery of the flat plate (see figure 2), wherein the reduced external diameter portion of the tube is disposed in the slot (see figure 5).

Vyse fails to explicitly disclose a reduced internal diameter portion adjacent the first internal surface and having a second internal diameter less than the first internal diameter, an elongated internal surface adjacent the reduced internal diameter portion

Art Unit: 3679

having a third internal diameter substantially equal to the first internal diameter, and wherein the reduced external diameter portion and the reduced internal diameter portion define a retention groove.

However, Yoshino discloses a connecting structure having a reduced internal diameter portion adjacent the first internal surface and having a second internal diameter less than the first internal diameter (see figure 2 near (5a)), an elongated internal surface adjacent the reduced internal diameter portion having a third internal diameter substantially equal to the first internal diameter (see figure 2), and wherein the reduced external diameter portion and the reduced internal diameter portion define a retention groove (6).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the connection in Vyse to include a retention groove as taught by Yoshino in order to permit the groove to be formed after the pipe is connected (column 5 lines 19-20).

Regarding claim 2, Vyse further discloses wherein the retention groove is annular (see figure 7).

Regarding claim 5, Vyse further discloses wherein the tube further comprises a sealing groove (61) formed in the elongated external surface thereof interposed between the retention groove and the open end of the tube (see figure 6), wherein the sealing groove is adapted to receive sealing means (60).

Regarding claim 6, Vyse further discloses wherein the sealing means is an O-ring (60).

Regarding claim 7, Vyse further discloses a device (12) having an inlet/outlet port (63) therein for receiving the tube (see figure 2).

Regarding claim 19, the combination of Vyse and Yoshino discloses the limitations as presented in claim 1 above and Yoshino further discloses wherein the first external surface and the first internal surface have substantially the same length (see figure 2).

Regarding claim 20, the combination of Vyse and Yoshino discloses the limitations as presented in claim 1 above and Yoshino further discloses wherein the first external reduced diameter portion and the first internal reduced diameter portion have substantially the same length (see figure 2).

Regarding claim 21, the combination of Vyse and Yoshino discloses the limitations as presented in claim 1 above and Yoshino further discloses wherein the elongated external surface and the elongated internal surface have substantially the same length (see figure 2).

Regarding claim 22, Vyse discloses a tube retaining assembly comprising:

a tube (53) (see figure 6 at (58)) having an external surface and an internal surface,

a rolled groove formed in the external surface (66) that defines a reduced external diameter portion; and

a flat plate (16) having a substantially circular aperture (67b) formed therein and a slot (67a) extending outwardly from the substantially circular aperture without intersecting a periphery of the flat plate (see figure 2), wherein the rolled groove of the tube is disposed in the slot (see figure 5).

Vyse fails to explicitly disclose a corresponding reduced internal diameter portion.

However, Yoshino discloses a connecting structure having a corresponding reduced internal diameter portion (see figure 2 at (5a)).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the connection in Vyse to include a retention groove as taught by Yoshino in order to permit the groove to be formed after the pipe is connected (column 5 lines 19-20).

With respect to the phrase “rolled groove,” it is to be noted that the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight. (Product by Process MPEP 2113).

Regarding claim 23, Vyse further discloses wherein the rolled groove is an annular rolled groove (see figure 7).

Regarding claim 24, Vyse further discloses wherein the rolled groove includes at least one flat portion (see figure 6 which illustrates that the side walls of the groove are flat and that the bottom has a flat cross section).

Regarding claim 25, Vyse further discloses wherein the tube includes a second rolled groove (61) formed in the external surface, the second rolled groove defining a second reduced external diameter portion (see figure 6).

Vyse fails to explicitly disclose a corresponding second reduced internal diameter portion.

However, Yoshino discloses a connecting structure having a corresponding reduced internal diameter portion.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the connection in Vyse to include a retention groove as taught by Yoshino in order to permit the groove to be formed after the pipe is connected (column 5 lines 19-20).

Regarding claim 26, Vyse further discloses further comprising an O ring (60) disposed in the second rolled groove.

Regarding claim 27, Vyse further discloses a device having a port for receiving the tube (see figure 6).

Art Unit: 3679

Regarding claim 28, Vyse discloses a tube retainer assembly comprising:

a hollow tube (53) (see figure 6 at (58)) having a rolled retention groove (66) and a rolled sealing groove (61); and

a flat plate (16) having a hole (67b) formed therein and a slot (67a) extending outwardly from the hole, wherein the rolled retention groove of the tube is disposed in the slot (see figure 5).

Vyse fails to explicitly disclose each of the rolled retention groove and rolled sealing groove defining reduced diameter portions of an internal surface of the hollow tube.

However, Yoshino discloses a connecting structure having a reduced diameter portion of an internal surface of the hollow tube (see figure 2 at (5a)).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the connection in Vyse to include a retention groove as taught by Yoshino in order to permit the groove to be formed after the pipe is connected (column 5 lines 19-20).

With respect to the phrases “rolled retention groove” and “rolled sealing groove,” it is to be noted that the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight. (Product by Process MPEP 2113).

Regarding claim 29, Vyse further discloses an O ring (60) disposed in the rolled sealing groove.

Regarding claim 30, Vyse further discloses wherein the rolled retention groove is an annular groove (see figure 2).

Regarding claim 31, Vyse further discloses wherein the rolled retention groove has at least one flat portion (see figure 6 which illustrates that the side walls of the groove are flat and that the bottom has a flat cross section).

Regarding claim 32, Vyse further discloses wherein the rolled sealing groove is an annular groove (see figure 2).

Regarding claim 33, Vyse further discloses a device having a port for receiving the tube (see figure 6).

Response to Arguments

10. Applicant's arguments with respect to claims 1, 2, 5-7, and 19-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Applicant amended claim 1 to include a reduced internal diameter in lines 10-11. Newly submitted claims 22 and 28 include reduced internal diameters in lines 3-4.

Art Unit: 3679

12. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn Driggers whose telephone number is (571)270-5740. The examiner can normally be reached on Mon-Fri 9:00a-5:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gwendolyn Driggers /GD/
Examiner
Art Unit 3679
12/28/11

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679